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MANP006 GROUP REPORT - ASSIGNMENT 1

**Handout: Monday 11th October 2021.**

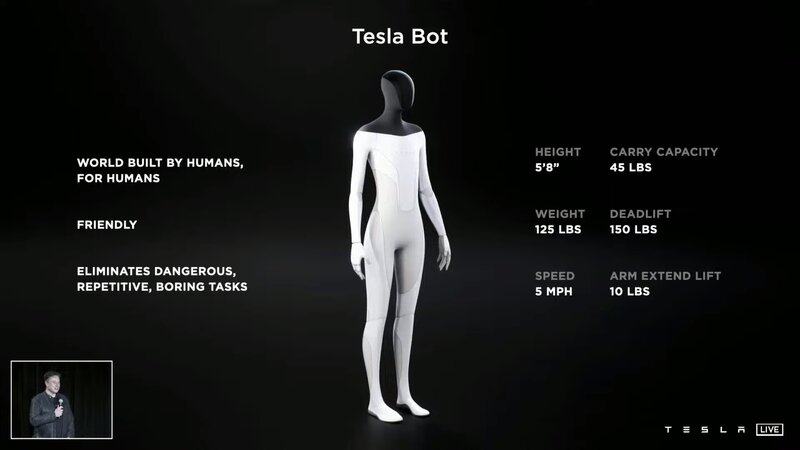
**Submission: Two thousand word group report to be submitted by Monday 8nd November 2021, 11 am.**

**Groupwork: groups can be up to a maximum of 4 people each.**

ASSIGNMENT 1: STRATEGY FOR TEXT ANALYSIS OF CLIMATE-CHANGE SURVEY FOR STIRLING COUNCIL

**Modern Robots** – AI and the questions it raises has been has been described as one of the most pressing challenges of our time.

Elon Musk’s Tesla Corporation has plans to be the first company to produce a viable humanoid robot that will be affordable. First news of the Tesla Bot was given at the Tesla AI Day event, streamed live from Tesla’s headquarters in Palo Alto, USA on the 19th of August 2021. Elon Musk’s presentation can be found here: <https://youtu.be/HUP6Z5voiS8>



The robot will leverage Tesla’s already existing technology for its automated machines and SLV software. The code name for the bot is ‘Optimus’. CEO Elon Musk envisions a world in which the human drudgery, such asgrocery shopping, “the work that people least like to do,” can be taken over by humanoid robots like the Tesla Bot.

Musk stated that Optimus is “intended to be friendly”. Optimus will weigh 125 pounds and will have a screen for a face. Musk described the robot as a natural extension of Tesla's work to in the area of self-driving vehicles. The robot will use the same computer chip, and navigate with eight cameras, no different than the Tesla's vehicles.

There were mixed media, press and cultural reactions to news of Optimus appearing on the marketplace. Some observers were extremely positive, some were neutral, and a sizeable proportion were negative. A range of video recordings have been collected that explore the range of responses.

Ranging from Russell Brand (v negative) [https://m.youtube.com/watch?v=Vkt3-PVoXco](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fm.youtube.com%2Fwatch%3Fv%3DVkt3-PVoXco&data=04%7C01%7Ct.b.kane%40stir.ac.uk%7C3897273f22e64f09c5db08d97ac9e8fb%7C4e8d09f7cc794ccb9149a4238dd17422%7C0%7C0%7C637675829881806592%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C2000&sdata=pGIOBPBocAeaNY3RTdvLKtC6pkFvwDpqOeANIxCsvOE%3D&reserved=0)

The Guardian (Negative)

[https://www.theguardian.com/commentisfree/2021/aug/31/the-tesla-bot-reveals-the-alarming-truth-billionaires-dont-know-what-its-like-for-the-rest-of-us](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.theguardian.com%2Fcommentisfree%2F2021%2Faug%2F31%2Fthe-tesla-bot-reveals-the-alarming-truth-billionaires-dont-know-what-its-like-for-the-rest-of-us&data=04%7C01%7Ct.b.kane%40stir.ac.uk%7C91ca49279f304608b5c708d97ac6d5f6%7C4e8d09f7cc794ccb9149a4238dd17422%7C0%7C0%7C637675817703429467%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C2000&sdata=VC0UAEuGaW1ZxV6f7euIaIYN4PrAHG%2BG5JV52Daegvc%3D&reserved=0)

The Conversation (Neutral) [https://theconversation.com/elon-musks-tesla-bot-raises-serious-concerns-but-probably-not-the-ones-you-think-166714](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Ftheconversation.com%2Felon-musks-tesla-bot-raises-serious-concerns-but-probably-not-the-ones-you-think-166714&data=04%7C01%7Ct.b.kane%40stir.ac.uk%7C91ca49279f304608b5c708d97ac6d5f6%7C4e8d09f7cc794ccb9149a4238dd17422%7C0%7C0%7C637675817703419512%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C2000&sdata=knmoePmT963aZ0UjNMeUaqE%2BKWPOEsh6eZAzwv%2Fe6E8%3D&reserved=0)

Business Insider (Generally Positive) [https://www.businessinsider.com/elon-musk-unveils-tesla-bot-humanoid-robot-based-off-autopilot-2021-8?op=1&r=US&IR=T](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.businessinsider.com%2Felon-musk-unveils-tesla-bot-humanoid-robot-based-off-autopilot-2021-8%3Fop%3D1%26r%3DUS%26IR%3DT&data=04%7C01%7Ct.b.kane%40stir.ac.uk%7C91ca49279f304608b5c708d97ac6d5f6%7C4e8d09f7cc794ccb9149a4238dd17422%7C0%7C0%7C637675817703439423%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C2000&sdata=i%2BEN8T%2BzYC2pah7PHv86bFP2G47aoZTWOVlKkkxEsto%3D&reserved=0)

Sky News (Positive) [https://news.sky.com/story/elon-musk-claims-prototype-tesla-bot-set-to-arrive-next-year-and-it-can-pick-up-your-groceries-12385705](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fnews.sky.com%2Fstory%2Felon-musk-claims-prototype-tesla-bot-set-to-arrive-next-year-and-it-can-pick-up-your-groceries-12385705&data=04%7C01%7Ct.b.kane%40stir.ac.uk%7C91ca49279f304608b5c708d97ac6d5f6%7C4e8d09f7cc794ccb9149a4238dd17422%7C0%7C0%7C637675817703429467%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C2000&sdata=rNvqtXSFB%2Bzil46FrcgwDnV%2BaO92Dez%2BY584XkUkLcQ%3D&reserved=0)

News National USa (v positive) [https://newsnationusa.com/news/finance/banking/elon-musk-unveils-tesla-bot-a-humanoid-robot-that-would-be-made-from-teslas-self-driving-ai/](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fnewsnationusa.com%2Fnews%2Ffinance%2Fbanking%2Felon-musk-unveils-tesla-bot-a-humanoid-robot-that-would-be-made-from-teslas-self-driving-ai%2F&data=04%7C01%7Ct.b.kane%40stir.ac.uk%7C91ca49279f304608b5c708d97ac6d5f6%7C4e8d09f7cc794ccb9149a4238dd17422%7C0%7C0%7C637675817703439423%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C2000&sdata=dDvDghABbGr2MESLdFTs6wfZdG4rmNlcwL7Guqe6RFA%3D&reserved=0)

And some mixed messages, from outlets such as CNET [https://duckduckgo.com/?q=tesla+bot&t=fpas&iax=videos&ia=videos&iai=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3D6mb-7y27ekg](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fduckduckgo.com%2F%3Fq%3Dtesla%2Bbot%26t%3Dfpas%26iax%3Dvideos%26ia%3Dvideos%26iai%3Dhttps%253A%252F%252Fwww.youtube.com%252Fwatch%253Fv%253D6mb-7y27ekg&data=04%7C01%7Ct.b.kane%40stir.ac.uk%7C67ed15b0f8894c9d6f3c08d97ac7cbbb%7C4e8d09f7cc794ccb9149a4238dd17422%7C0%7C0%7C637675821381823892%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=Cu9O0v021iMIMhC5QzPzgxHzATyhVmlYoDE%2BPBfh0KA%3D&reserved=0)

Tesla have been trying to choose a city in the USA that would benefit from having the first robot showroom. New York City has been chosen as one possible site of the first Optimus showroom. However, the company is concerned about the media and social media stories that could negatively impact on the successful launch of the new robot. Your consultancy company, Upstarts Inc, was asked to give Tesla an understanding of how news media has been portraying AI issues in New York City. Your company was given data, collected from different sections of the Newspaper from 1986 to 2016. This data is a reference to every article in the paper that mentions AI, as well as the paragraph that actually mentions AI. This is every article that has mentioned AI from 1986-2016, and 57,000 occurrences were found.

# MANP006 Assignment 1

We will use the dataset to see how AI has been reported in the following sections of the newspaper: arts, automobiles, books, business, fashion, food, health, home, insider, magazine, movies, nyregion, obituaries, opinion, politics, realestate, science, sports, sundayreview, technology, theater, t-magazine, travel, upshot, us, and world.

Of these, sections of the paper, initial interest is in:

1. Science
2. Business
3. Opinion
4. Arts
5. Technology

You are to choose three from this selection and show to your client:

* Two major issues that are important and that may cause the company difficulties as it introduces the sale of robots to New York
* And two positive issues that exist in the data that the company can take advantage of.

(Instead, you could choose two from the above and one section of your own choice from the newspaper instead of choosing three from the options given). You will have to clean some of this data, and aggregate sections, and potentially exclude some of it. Show, using a topic analysis and word cloud an example of the kind of exploration you would do. For each of the chosen sections,

You are also asked how you would collect data from Twitter (since 19th August 2021, the launch date of the Optimus project), that will highlight issues regarding Optimus that will need to be tackled carefully, and any topics that are of importance to people in general. Give an example of data collection from Twitter and demonstrate its content using sentiment analysis.

Your report will need to show that you understand the business issues and that you are able to demonstrate a good understanding of the data. You are not expected to produce a plan. Please be aware that we are not asking you to complete the task. We are asking you to describe what you would do, and give an example of the kinds of results you would expect to get. You are only asked in this report to propose an analysis that will be valuable in the New York Times dataset, and another that would be valuable in the Twitter dataset.

You are to produce a 2000 word report for Tesla to specify what analysis you would make of the corpus. That analysis work is timetabled to take place in late November 2020.

Your key tasks are:

1. Perform stage 1 of CRISP-DM – Business Understanding for Tesla that will justify the analysis from a business perspective. Showing what will be involved, which of the topics you will focus on, and why there will be significant payoff for doing the work.
2. Perform stage 2 of CRISP-DM – Data Understanding for Tesla that will demonstrate knowledge and understanding of the data and will present examples of the types of analysis that can be done.
3. As part of your Data Understanding phase use appropriate text analytics techniques, such as word clouds, concordance, bag of words, sentiment analysis and topic analysis to provide examples of the kinds of analysis that are possible.
4. Make recommendations for a 1-month project that will deliver to Tesla an in-depth text analysis of the New York Times data, along with topic analyses. You are also to produce a plan for pursuing sentiment analysis from Twitter, and any other reliable source, from 19th August 2021.

SUBMISSION AND ASSESSMENT

The 2000 word client report is to be submitted by Monday 8nd November at 11am. Your report will be marked to the following criteria:

|  |  |
| --- | --- |
| **Report Requirement** | **Percentage of Marks Awarded** |
| Quality of Report Presentation, layout, logic, impact. | 20 |
| Business Understanding | 20 |
| Data Understanding | 20 |
| Use of examples in descriptive and predictive analytics to bolster the case | 20 |
| Overall Competence of Project Proposal | 20 |

**You are reminded that evidence of plagiarism may result in disciplinary action.**